

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 82.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-026429**Date Inspected:** 21-Sep-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 600**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1430**Contractor:** Westmont Industries**Location:** Santa Fe Springs, CA**CWI Name:** Patrick Fitzgerald**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006 L & R**Component:** Maintenance Travelers**Summary of Items Observed:**

On this date, Caltrans Quality Assurance Inspector (QA) Sherri Brannon is present at the Westmont Industries (WMI) jobsite in Santa Fe Springs, California for the purpose of observing fabrication and QC functions for the SAS Superstructure, Bid Item #99, Maintenance Traveler and Bid Item #100, Maintenance Traveler (Bike Path).

**E2/E3-WB Traveler (South) & (North)**

This QA Inspector randomly observed WMI production welder Mr. Daniel Grayum (WID # 3049) performing fit up, tack welding and welding activities using Flux Core Arc Welding (FCAW) on the E2/E3-WB Traveler Assemblies. This QA Inspector observed Mr. Grayum performing the FCAW in all positions, randomly throughout the shift.

This QA Inspector randomly observed WMI production welder Mr. Eutimo Lopez (WID # 3035) continuing to perform Flux Core Arc Welding (FCAW) activities on the E2/E3-WB Traveler Assemblies. This QA Inspector observed Mr. Lopez performing the FCAW in all positions on tube steel and plate material, randomly throughout the shift. Welding completed on the E2/E3 WB Traveler on this date.

**Traveler Trolley Train Suspension System Assembly**

This QA Inspector randomly observed WMI production personnel Mr. Richard Fuentes and helpers continuing to assemble trolley train suspension system randomly throughout the shift.

**WMI pending Items**

1-Welding not complete on the SAS WB Traveler. WMI still needs to weld the lower truss section to the fixed

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stairs section.

2-Welding not started on the supplementary access platform for the SAS EB Traveler and the SAS WB Traveler.

This QA Inspector randomly observed that Smith Emery, CWI, QC Inspector Mr. Patrick Fitzgerald was present, during the above mentioned welding and fitting activities. During random observation, this QA Inspector observed that the applicable WPS's and copies of the shop drawings, appeared to be located near each work station, where the above mentioned welding and fitting activities were being performed. This QA Inspector randomly verified that the consumable material, utilized during the welding appeared to be in compliance with the applicable WPS and that the above mentioned welders were currently qualified for the applicable process and position of welding. This QA Inspector randomly observed QC Inspector Mr. Fitzgerald verifying the in-process welding parameters, including voltage, amperage, pre-heat and travel speed and the parameters appeared to be in compliance to the applicable WPS.

### RPI Coating (Blast and Paint)

This QA Inspector performed random shop observations and observed that RPI Coating continuing coating applications on the SAS EB Traveler. QA Inspector was informed by RPI Coating Quality Control (QC) Representative Mr. Preston Keen that RPI is going to start sanding and pressure washing sections 1, 2, and 3 on the SAS EB Traveler today. QA Inspector randomly RPI personnel hand sanding primed coating using 100grit sandpaper and pressure washing traveler using a 6000 psi pressure washer.

Mr. Keen informed QA Inspector that on the interim coating of the Sherman Williams Zinc Clad II, Inorganic Zinc Rich prime coating he would be performing ASTM D4541 – Standard Test Method for Pull-Off Strength of Coating Using Portable Adhesion Tester, ASTM D3363 - Film Hardness by Pencil Test, ASTM D4752 Measuring MEK Resistance to Ethyl Silicate (Inorganic) Zinc-Rich Primers by Solvent Rub and performing the Quarter test. Mr. Keen stated that he will be using a calibrated Elcometer Hydraulic Adhesion Tester Model 108 for the adhesion test and Sherman Williams R7 KIII High Solids compliant thinner #1 for the solvent rub test. QA Inspector selected one (1) location for adhesion tests for per each day of production.

Testing observed is as follows:

Prime coated on 9-12-11 (section 1), adhesion test 725 psi (pass), Pencil Test (pass), Quarter Test (pass) and Rub test (pass).

Prime coated on 9-13-11 (section 2), adhesion retest 750 psi (pass), Pencil Test (pass), Quarter Test (pass) and Rub test (pass).

Prime coated on 9-14-11 (section 3), adhesion test 700 psi (pass), Pencil Test (pass), Quarter Test (pass) and Rub test (pass).

Prime coated on 9-15-11 (section 4), additional adhesion test 800 psi, 900 psi (pass), Pencil Test (pass), Quarter Test (pass) and Rub test (pass).

Prime coated on 9-16-11 (section 5), adhesion test 420 psi (fail-paint) additional adhesion test performed by RPI Coating 380 psi, 700 psi, 400psi, 580 psi, 700 psi, and 510 psi.

QA Inspector informed Mr. Keen that due to failing adhesion tests being below the required 580 psi/ 4 MPa that the entire area for that day of production will need to be re-blasted and re-primed. Mr. Keen stated that he would like to perform additional adhesion tests. QA observed Mr. Keen glue additional dollies in the area of 9-16-11 production. After completion of the additional adhesion tests setup and performed by RPI. Mr. Keen informed QA Inspector that RPI is going to blast off the prime coating for the production date of 9-16-11. QA Inspector

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informed SMR Mr. Nicolai Hvass of the above information.

This QA Inspector randomly observed RPI Coating re-blasting section 5 to remove prime coating application due to failing adhesion tests on the SAS EB Traveler. Mr. Keen informed QA Inspector that RPI will complete re-blasting today but will not have time to re apply the prime coat today, and will sweep blast and apply the prime coating tomorrow.



### Summary of Conversations:

QA Inspector informed SMR Mr. Nicolai Hvass of the above information.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Brannon, Sherri
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Quality Assurance Inspector
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<b>Reviewed By:</b>	Lanz, Joe
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QA Reviewer
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